REFER CASUALTY TO THE NEAREST HOSPITAL

BLEEDING FROM TOOTH SOCKET

This may result from tooth extraction or from accident which a tooth is broken.

MANAGEMENT

- Give ice to patient to suck if available
- Plug of cotton wool or gauze may be fitted into the socket and patient asked to clench the teeth very firmly
- Refer casualty to the nearest hospital

WOUND

Is any break in the integrity of the skin surface

CAUSES

Wounds are mostly caused by accidents such as:

1. Road traffic accident, incidental cut by sharp object e.g. knife, blades, broken bottles, glass etc.
2. Disease: disease causing pathogens such as staphylococcus infection that causes pus formation results in wounds.

TYPES OF WOUNDS

1. ABRASED WOUNDS: here the skin is scraped off but there is no deeper injury
2. INCISED WOUND: It occurs as a result of a sharp instrument cutting or breaking the skin such as knife, or piece of glass. This wounds usually bleed freely but heals quickly
3. PUNCTURED WOUND: is a type of wound caused by a pointed instrument such as spokes, needle, and bayonet or by gunshot. The depth is greater than the length and there is danger of deep organs being damaged. Punctured wounds are usually not sutured unless exploration is done.
Each upper limb  9%
Front of trunk  2 x 9% = 18%
Back of trunk  2 x 9% = 18%
Each lower limb  2 x 9% = 18%
Perineum  1%

**Signs and symptoms:**

- Intense burning and pain in the affected area
- Enhanced thirst
- Skin is reddened and blisters form in superficial burns
- Skin is black in colour in deep burns
- Shock

**First aid measure:**

1. Put out the fire by dowsing with water or wrapping the person in a blanket or rug. The blanket or rug is to be held in front of the person. Do not allow the person on fire to run about especially into fresh air.
2. Immerse the burnt part in cold water, using a bucket. Keep the part in cold water for 15-20 minutes. Or until pain disappears.
3. If water is not available, cover burnt area with sterile dressing or freshly laundered linen. Avoid exposure to air. In case of burns over face, make the dressing in the shape of a mask, with holes at the level of the nose for breathing.
4. Remove rings, bracelets, shoes and any other tight fitting articles, as swelling may develop later on, making it difficult to remove them.
5. Arrange for immediate transfer to hospital.
6. When a large area is damaged, pack ice in a towel and apply it to the burnt area during transfer to hospital.
7. Do not put lotions, ointments or oil over the burnt area.
8. Do not break blistering.
9. Do not pull away burnt clothing stuck to body.
10. Do not touch the patient unnecessarily

**In chemical burns, take the following steps:**

1. Remove the contaminated cloth carefully after soaking it in water
2. Wash the affected area with cold water for 10 – 15 minutes by flooding
3. Use sodium bicarbonate solution to wash acid burns, and vinegar to wash alkali burns, before washing with water:

**First aid treatment for electrical burns and shock:**

1. Switch off current and remove plug from socket
2. If the patient is in contact with a live wire, separate the wire from the patient using a wooden stick
3. Wear rubber gloves, if available
4. Give artificial ventilation and external cardiac massage, if necessary
5. Treat shock if any
6. Clean and cover the burnt area with sterile dressing and immediately transfer to hospital
7. Give tea or coffee once the patient becomes conscious.

**FRACTURES**

Fracture: a fracture is a break in the continuity of a bone. A complete fracture involves a break across the entire cross section of the bone which is frequently displaced.

In an incomplete fracture, the break occurs only through a part of the cross section of the bone which is usually undisplaced. An open fracture is one that extends through the skin and mucous membrane.

A closed fracture does not communicate with the outside area.

Types of Fracture:
✓ T-bandage
✓ Many tailed bandage
✓ Tubular gauze bandage
✓ Elastic net (crepe bandage)
✓ Barrel bandage

**Triangular Bandage:** it is a bandage of 38” square diagonally into two pieces. A triangle bandage has three borders. The longest is called the base and the other two, the sides. There are three corners, the upper one is called the point and the others, the ends. It can be used as a whole cloth, as a broad bandage and as a narrow bandage.

**Reef knot:** to secure the cuds of a bandage, a reef knot must be used. To make a reef knot, take the ends of the bandage, one in each hand. Cross the end in the right hand under and then over the end in the left hand thus making a turn. Then, cross the end now in the right hand over and then, under the end in the left hand, thus, making a second turn. The end must be placed where it does not cause discomfort. After the reef knot is completed, the ends of the bandage should be tucked away out of sight.

Bandages may be improvised from handkerchief, belts, straps, or any piece of linen.

**Sling:** a sling is used to afford support and rest to an upper limb, and to prevent the weight of an upper limb, pulling on or moving the chest, shoulder or neck.

**Arm Sling:** it supports the fore arm and is used in cases of fractured ribs, in cases of wounds and injuries of the upper limbs, and in cases of fracture of the forearm when splints are being used.

To apply an arm sling, face the casualty and put one ends of a spread out triangular bandage over his shoulder on the sound side, with the point towards the injured side, pass it round his neck so that it appears over the shoulder of the injured side, and let the other end hang down in front of chest. Carry the point behind the elbow of the injured limb, and place the forearm over the middle of the bandage, right angle to the upper arm. Carry the second end up to the first, and tie them in the hollow, just above the collar bone. Tuck the bandage into the back of the elbow, bring the point forward and secure with a safety pin, to the front of the bandage. Finger nails should be exposed for observation. A cotton pad is kept on the neck to prevent friction.
elbow, then, round the upper arm and tie above the elbow. Bring the point down over the knot and elbow, and pin it.

**For the hand:** Keep the injured hand on a triangular bandage so that the base of the bandage is towards the wrist and the pointed end toward the fingers. Now, turn pointed end from the fingers back, towards the wrist. Carry both the side ends around the writs, tie knot and turn the pointed end over the knot, cover and apply safety pins.

**On the hip:** Sit on the support of knees towards the upper side of the affected hip. Tie a narrow bandage round the wrist like a girdle. Now, take the triangular bandage and take its pointed end, and hook this point under the girdle. Carry the ends round the thigh and over the knot of the girdle and pin it to the bandage on the thigh.

**For the knee:** Bend the casualty’s knee to a right angle. Fold a narrow hem inwards along the base of an open bandage. Lay the point on his thigh and the middle of the base below the knee. Cross the ends behind his knee, then, round his thigh and tie above his knee on the front of this thigh. Bring the point down over the knot and knee, and pin it.

**For the foot:** Place the casualty’s foot on the centre of an open bandage with his toes towards the point. Draw up the point over his instep, bring the ends forward so that his heel is covered, and cross them, pass the ends, round the ankle, cross at back and, then, tie them in front. Draw the point forward and pin into the bandage over the instep.

**Roller Bandages**

Roller bandages are made of various materials of various lengths according to use:

- **Fingers** 1 inch broad
- **Head and arm** 2 – 2.5 inch broad
- **Leg** 3 – 3.5 inch broad
- **Trunk** 4 – 6 inch broad

**Purpose:** To keep the dressing in position.
2. Fix the bandage by a turn round the wrist and carry the roll obliquely, over the back of the hand, to the side of the little finger.

3. Carry the bandage round the palm, rounding the fingers with one horizontal turn, so that the lower border of the bandage just reach the root of the nail of the little finger.

4. Carry the bandage once more round the palm and, then, return obliquely to the wrist.

5. The figure of 8 turns round the wrist and hand are repeated until the hand is covered and the bandage is finished with a spiral turn around the wrist.

Wrist, forearm and upper arm bandages: They are bandaged by simple and reverse spiral until the elbow. Figure of 8 can be used at the elbow.

Elbow bandage:

1. Bend the elbow at right angles.

2. Lay the outer side of the bandage on the inner side of the joint and take one straight turn, carrying the bandage over the elbow tip, round the limb at the elbow level.

3. The second turn is made to encircle the joint and the third, the forearm.

4. Each of these turns is made to cover the margins of the first turn.

5. Continue the turns, alternately below and above the first turn, allowing each to cover a little more than 2/3 rds of the previous turn.

6. The upper arm is bandaged by reverse spiral.

Finger Bandage:

1. Keep the palm downwards

2. Fix a one inch bandage by two circular turns, round the wrist, leaving the end free for tying afterwards.

3. Carry the bandage obliquely, over the back of the hand, to the base of the finger, to be bandaged, taking the fingers in the order, starting from the little finger side.

4. Take one spiral turn to the base of the finger nail and, then, cover the finger by single spiral turns.

5. Then, carry the bandage across the back of the hand to the wrist and complete it with one straight turn round the wrist. Secure the bandage by a safety pin.
EPILEPSY

It is the convulsive attack resulting from disordered electrical activity in the brain cells. There are 2 types.

1. Grand mal (major)  
2. Petit mal (minor)

GRAND MAL EPILEPSY (Generalized seizure)

In grand mal epilepsy, the patient falls to the ground unconscious following the aura, tonic, clonic, coma and final phase. There are two types of grand mal epilepsy.

1. Idiopathic  
2. Symptomatic

❖ IDIOPATHIC: in this type of epilepsy the cause is not known and may begin in childhood or adolescent.
❖ SYMPTOMATIC: There are known pathological factors which are directly or indirectly responsible for the seizure.

SIGNS AND SYMPTOMS OF GRAND MAL

These are usually in sequence

❖ Aura phase (warning): in this phase, patient may experience irritability, tension or headache for a few seconds before the episode. A brief sensory or perceptual alteration of consciousness occurs. The aura may cause auditory, visual, olfactory and gustatory disturbance and numbness or tingling sensation in any area of the body.
❖ Tonic phase: this phase follows the aura phase, the patient falls to the ground with tonic spasm which causes rigidity of the body. An involuntary cry may be heard as a result of sudden contraction of the thoracic and abdomen muscles forcing the air through the spastic glottis. There is temporary sensation of respiration and patient becomes cyanosed. The jaws are fixed and clenched, eyes widely opened and pupil dilated.
Bites: Snake, scorpion, dogs Skin:

Pesticides.

Classification of poisons

1. Corrosives
   a. Acids such as nitric acid and hydrochloric acid
   b. Alkaline like ammonia and caustic soda

2. Gas poisons
   a. Carbon monoxide, Hydrogen sulphide

3. Noncorrosives
   a. Narcotics such as strychnine and belladonna
   b. Irritants such as Lead and poisonous barriers or fungi

Precaution to be taken to avoid poisoning:

- Do not leave medicines within reach of children.
- Do not store medicines for long periods.
- Do not take drugs in the dark; always read the label before taking medicine.
- Do not pour harmful liquids into bottles of lemonade or other drinks.
- Do not keep detergents, domestic cleaners and acids under sink, where children can find them.
- Do not take medicines without medical advice.
- Do not burn coal in closed rooms as it produces carbon monoxide.
- Use household cooking gas with care.
- Avoid contact with dogs which are not immunized for rabies.
Foreign bodies in various organs

Foreign body in Throat: fish bone, coins, piece of food, false teeth, etc., may be lodged in throat

Symptoms: there may be violent coughing and difficulty in breathing or swallowing

First aid:

1. Call for a doctor
2. Do not try to remove foreign body with your fingers or with food or cotton
3. Hold the patient upside down and give him a slap on the back to remove the obstruction
4. Artificial respiration may be needed

Foreign body in nose: if a foreign body likes a grain, corn, pea, bean, etc., that is likely to swell, has lodged in the nose, a few drops of mineral oil may be dropped to relieve irritation and swelling.

First Aid measures:

1. Take the patient to doctor as soon as it can be done
2. The nose should be blown out vigorously
3. It should never be blown with one nostril

Foreign Bodies in Eye: foreign bodies like dust, iron, coal or ashes maybe carried into the conjunctiva sac or may adhere to cornea; particles may penetrate the chambers of the eyes. They produce scratchy feeling; patient feels discomfort, and the eye is sensitive to light.

Precautions:

1. Never rub the eye
2. Never examine an eye for a foreign body because dirt might enter and make the injury worse
3. Never attempt to remove foreign body with a match, knife, blade or any instrument
4. Send the patient to a physician if the foreign body is imbedded in the eye ball.

First aid:
External pressures such as

a. Smothering (suffocation) due to piece of material such as a pillow or a plastic bag etc completely covering the nose and mouth
b. Compression of the neck by strangulation and hanging

Paralysis of the muscles of respiration due to;

a. Electric shock
b. Certain poison such as carbon dioxide & morphine
c. Disease of the nervous system e.g poliomyelitis or injury to the spinal cord

Gross chest and lung damage such as a collapse of the lungs due to rupture of lung tissue or perforating wound of the chest wall.

b. Compressing of the chest by fall of earth, sand or crushing against a hard object

Lung disease e.g acute pneumonia and cancer

CLINICAL MANIFESTATION

• Difficulty in breathing with increasing rate and depth
• The individual becomes restless and agitated
• Coughing and spluttering
• Cyanosis occurs shown by blueness of lips and inside the mouth
• The face becomes congested and the neck vein distended with blood
• Pupils may dilated
• Consciousness is gradually lost and breathing ceases

VARIOUS METHODS OF ARTIFICIAL RESPIRATION

There have been several methods of artificial respiration practice in first aid but the most effective and common one is the mouth to mouth or mouth to nose.

MOUTH TO MOUTH

1. Place the casualty on the back. Hold his head tilted back
2. Take a deep breath with mouth opened widely
Keep in mind that children’s lungs have much smaller capacity than those of adults. When ventilating a child, be sure to use shallower breaths and keep an eye on the victim’s chest to prevent stomach distention.

If this happens and the child vomits, turn his head sideways and sweep all obstructions out of the mouth before proceeding. After you’ve administered the child two breaths and he remains unresponsive (no breathing coughing or moving), check his circulation

CIRCULATION

“C” is for CIRCULATION. Check the child’s carotid artery for pulse by placing two fingertips and applying slight pressure on his carotid artery for 5 to 10 seconds. If you don’t feel a pulse then the victim’s heart is not beating and you will have to perform chest compressions.

COMPRESSIONS

When performing chest compressions on a child proper hand placement is even crucial than with adults. Place two fingers at the sternum (the bottom of the rib cage where the lower ribs meet) and then put the heel of your other hand directly on top of your fingers.

A child’s stronger and more fragile body requires less pressure when performing compressions. The rule to remember is 1 hand, 1 inch. If you feel or hear slight cracking sound, you may be pressing too hard. Apply less pressure as you continue.

Count aloud as you compress 30 times, followed by 2 breaths. Perform 5 cycles of 30 compressions and 2 breaths before checking the child for breathing and pulse. Check the victim’s carotid artery for pulse as well as any signs of consciousness. **DO NOT FORGET TO DIAL 112.**

CHILD CPR REVIEW

Children’s CPR is given to anyone under the age of 8. The procedure is similar to that for adults with some minor but important differences.

1. Check for responsiveness by shouting and shaking the victim. Do Not shake the child if he has sustained a spinal injury.
Purpose

- To relieve pain immediately
- To improve oxygen supply
- To reduce myocardial oxygen demand

Medical management

Nitroglycerine: Reduce myocardial oxygen consumption which decreases ischaemia and relieve pain. They dilate the blood vessels which cause venous blood pooling throughout the body. As a result less blood is returned to the heart and reduction in filling pressure occurs.

Beta-Adrenergic Blockers are used if nitroglycerine does not work eg. Propranolol hydrochloride. It reduces myocardial oxygen demand by blocking the sympathetic impulses to the heart which results in reduction in heart rate, blood pressure and myocardial contractility.

Calcium ion antagonist or Channel Blockers; increases myocardial oxygen supply by dilating the smooth coronary arterioles leading to decrease myocardial oxygen demand by systemic arterial pressure and thus the workload on the ventricle. Eg. Nifedipine and Verapamil.

Surgical Management

Obstruction by lesions may necessitate atherectomy or coronary artery bypass or graft is done by using graft.

Nursing Intervention

1. It is good to keep nitroglycerine for immediate use
2. Patient is told to call immediately when he feels chest, arm or neck pain before taking the drug
3. Vital signs are monitored especially blood pressure
4. Take a 12 lead ECG during angina before giving the nitrates
5. Duration of pain should be recorded
6. If cardiac catheterization has been done observe site for bleeding and check distal pulse
7. Heparin and antibodies are ordered and should be given as such.